

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) ~~Audio-An audio enhancement system (1),~~
comprising:
_____audio signal ~~(z, y, r)~~ inputs for a distorted desired
signal ~~(z, r)~~ and at least a reference signal ~~(y)~~; and
5 _____a spectral processor ~~(PP)~~ coupled to the audio signal ~~(z,~~
~~y, r)~~ inputs for processing the distorted desired signal in order
to provide just the desired signal, said spectral processor
using(z, r) by means of the at least one reference signal ~~(y)~~
acting as an estimate for the distortion of the desired signal ~~(z,~~
10 ~~r)~~, characterized in that the spectral processor ~~(PP)~~ is arranged
for modifying said processing processes said distorted desired
signal in such a way that the estimate for the distortion is a
function of A times the spectral power of the at least one
reference signal ~~(y)~~, where A is a ratio between the time averaged
15 spectral power of the distortion of the desired signal and the time
averaged spectral power of the at least one reference signal ~~(y)~~.

2. (Currently Amended) ~~Audio-The audio enhancement system (1)~~
~~according to as claimed in~~ claim 1, characterized in that the
estimate for the distortion is at least partly proportional to A
times the spectral power of the ~~at~~ at least one reference signal
5 ~~(y)~~.

3. (Currently Amended) ~~Audio-The audio enhancement system (1)~~
~~according to as claimed in~~ claim 1, characterized in that the
estimate for the distortion at least partly depends on the signal
to noise ratio of the distorted desired signal ~~(z, r)~~.

4. (Currently Amended) ~~Audio-The audio enhancement system (1)~~
~~according to as claimed in~~ claim 1, characterized in that the
respective spectral powers are defined by ~~some a positive function~~
of the spectral power concerned, ~~such as said positive function~~
5 ~~being one of~~ the spectral magnitude, the squared spectral
magnitude, the power spectral density or the Mel-scale smoothed
spectral density.

5. (Currently Amended) ~~Audio-The audio enhancement system (1)~~
~~according to as claimed in~~ claim 1, characterized in that the ratio
A is calculated based on data acquired during absence of the
desired signal.

6. (Currently Amended) ~~Audio-The audio enhancement system (1)~~
~~according to as claimed in~~ claim 5, characterized in that the speech
enhancement system ~~(1)~~ ~~further comprises~~ a speech activity detector
(DET), ~~which is coupled to the spectral processor (PP)~~.

7. (Currently Amended) ~~Audio-The audio enhancement system (1)~~
~~according to as claimed in~~ claim 1, characterized in that the audio

enhancement system ~~(1) further~~ comprises adaptive microphone filter means ~~(3) coupled to the spectral processor (PP).~~

8. (Currently Amended) ~~Audio~~ ~~The audio enhancement system (1)~~ according to ~~as claimed in~~ claim 1, characterized in that the audio enhancement system ~~(1) further~~ comprises one or more loudspeakers ~~(6)~~ and echo cancelling filter means ~~(7) coupled between the at~~ least one loudspeaker ~~(6) or more loudspeakers~~ and the spectral processor ~~(PP).~~

9. (Currently Amended) ~~System, in particular a~~ communication system, ~~for example a hands free communication device, such as a mobile telephone, or a voice controlled system, which system is~~ provided with an audio enhancement system ~~(1)~~, the audio enhancement system ~~(1) comprising:~~

.....audio signal ~~(z, r, y)~~ inputs for a distorted desired signal ~~(z, r)~~ and at least a reference signal ~~(y)~~, and

.....a spectral processor ~~(PP)~~ coupled to the audio signal ~~(z, r, y)~~ inputs for processing the distorted desired signal in order to provide just the desired signal, said spectral processor using ~~(z, r)~~ by means of the at least one reference signal ~~(y)~~ acting as an estimate for the distortion of the desired signal,

characterized in that the spectral processor ~~(PP)~~ is arranged for modifying said processing processes said distorted desired signal in such a way that the estimate for the distortion is a function of A times the spectral power of the at least one reference signal ~~(y)~~,

where A is a ratio between the time averaged spectral power of the distortion of the desired signal and the time averaged spectral power of the at least one reference signal~~{y}~~.

10. (Currently Amended) A method for enhancing a distorted desired signal~~{z, r}~~ in order to provide just the desired signal, said method comprising the steps of:

5 receiving a distorted desired signal and at least one reference signal; and

which signal is spectrally processed, processing the distorted desired signal whereby the at least one reference signal ~~{y}~~ acts as an estimate for the distortion of the desired signal, characterized in that the spectral processing is performed such that the estimate for the distortion depends on A times the spectral power of the at least one reference signal~~{y}~~, where A is the ratio between the time averaged spectral power of the distortion of the desired signal and the time averaged spectral power of the at least one reference signal~~{y}~~.